

Title (en)
OPTICAL WAVEGUIDE AND ARRAYED WAVEGUIDE GRATING

Title (de)
LICHTWELLENLEITER UND WELLENLEITER-GITTERANORDNUNG

Title (fr)
GUIDE D'ONDES OPTIQUE ET RÉSEAU SÉLECTIF PLANAIRE

Publication
EP 2579076 A4 20130410 (EN)

Application
EP 11786477 A 20110510

Priority
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Abstract (en)
[origin: US2013058608A1] A technique that does not increase the circuit size, does not make the circuit design and manufacturing difficult, and can reduce insertion loss when light enters from a slab waveguide toward an arrayed waveguide or when the light enters from the arrayed waveguide toward the slab waveguide. An optical waveguide provided with a slab waveguide in which a grating is formed therein at a distance from an end, and an arrayed waveguide whose end is connected to an end of the slab waveguide at a position where a constructive interference portion of a self-image of the grating is formed. An arrayed waveguide grating provided with a first input/output waveguide, the above-mentioned optical waveguide where an end of the slab waveguide on the opposite side of the arrayed waveguide is connected to an end of the first input/output waveguide, a second slab waveguide connected to an end of the arrayed waveguide on the opposite side of the slab waveguide, and a second input/output waveguide connected to an end of the second slab waveguide on the opposite side of the arrayed waveguide.

IPC 8 full level
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G02B 6/12011 (2013.01 - US); **G02B 6/12014** (2013.01 - EP US); **G02B 6/29344** (2013.01 - US); **G02B 6/2813** (2013.01 - EP US)

Citation (search report)
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• [A] US 2005089274 A1 20050428 - PETERMANN KLAUS [DE], et al
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• [T] HELFERT S F ET AL: "Studies of the self-imaging effect in multimode waveguides", TRANSPARENT OPTICAL NETWORKS, 2008. ICTON 2008. 10TH ANNIVERSARY INTERNATIONAL CONFERENCE ON, IEEE, PISCATAWAY, NJ, USA, 22 June 2008 (2008-06-22), pages 255 - 258, XP031306105, ISBN: 978-1-4244-2625-6
• See references of WO 2011148777A1

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